

EMERGENCY RESPONSE REPORT

FOR

PASADENA REFINING INC.
111 RED BLUFF ROAD
PASADENA, HARRIS COUNTY, TEXAS

Prepared for

U.S. Environmental Protection Agency Region 6
Linda Carter, Project Officer
1445 Ross Avenue
Dallas, Texas 75202

Contract No. EP-W-06-042
TDD No. TO-0001-11-12-02
WESTON W.O. No. 20406.012.001.0693.01
NRC No. 997774
FPN N/A
CERCLIS ID N/A
EPA OSC: William Rhotenberry
START-3 PTL: Rebecca Ayres

Submitted by

Weston Solutions, Inc.
Robert Beck, VP, P.E., Program Manager
70 NE Loop 410, Suite 600
San Antonio, Texas 78216
(210) 308-4300

11 January 2012

PROJECT SUMMARY

This final report describes the U.S. Environmental Protection Agency (EPA) response actions at the Pasadena Refining Inc. Facility. The site is located at 111 Red Bluff Road, Pasadena, Harris County, Texas. The detailed report follows this page, and all attachments are provided as separate portable document format (PDF) files.

On 10 December 2011 a representative from Pasadena Refining System, Inc. (PRSI), the potential responsible party (PRP), notified the National Response Center (NRC Report No. 997774) of two explosions and a fire at the Pasadena Refining System Facility. Following notification by the NRC, the EPA Region 6 Prevention and Response Branch (PRB) activated the EPA Region 6 Superfund Technical Assessment and Response Team (START-3) contractor, Weston Solutions, Inc. (WESTON®), to mobilize to the incident site and conduct a Tier 2 Response. START-3 mobilized on 11 December 2011 to collect facts regarding the explosions and subsequent fire including its source and cause; identify the pathways to human and environmental exposure and analyze the potential impact on natural resources and property; observe and document federal, state, and private actions; and provide written and photographic documentation of response actions. Representatives from the Texas Commission on Environmental Quality (TCEQ), Harris County Pollution Control Services (HCPCS), and local fire and police also responded. After determining the incident was stabilized, EPA On-scene Coordinator (OSC) Rhotenberry released START-3 from the site on 11 December 2011.

This final report was prepared by Weston Solutions, Inc. under Technical Direction Document (TDD) TO-0001-11-12-02 for EPA Region 6. The EPA OSC was William Rhotenberry and the START-3 Project Team Leader (PTL) was Rebecca Ayres.

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The EPA Task Monitor did not provide final approval of this report prior to the completion date of the work assignment. Therefore, Weston Solutions, Inc. has submitted this report absent the Task Monitor's approval.

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The EPA Task Monitor has provided final approval of this report. Therefore, Weston Solutions, Inc. has submitted this report with the Task Monitor's approval.

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EMERGENCY RESPONSE REPORT

PROJECT SUMMARY

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1. PROJECT IDENTIFICATION

Date: 11 January 2012

To: William Rhotenberry, On-Scene Coordinator (OSC)
U.S. Environmental Protection Agency (EPA)
Region 6, Prevention and Response Branch

Through: Linda Carter, Project Officer (PO)
EPA Region 6, Program Management Branch

Through: Robert Beck, VP, P.E., Weston Solutions, Inc. (WESTON®)
EPA Region 6, Superfund Technical Assessment and Response Team (START-3)
Program Manager

From: Rebecca Ayres, WESTON
EPA Region 6, START-3 Project Team Leader

Subject: Emergency Response: Pasadena Refining Inc.
111 Red Bluff Road
Pasadena, Harris County, Texas
TDD No. TO-0001-11-12-02
W.O. No. 20406.012.001.0693.01
NRC Report No. 997774
FPN N/A
CERCLIS ID N/A
Latitude: 29.720824° North
Longitude: 95.210251° West

Geographic coordinates of the Pasadena Refining Fire were determined by START-3 members using an online tool, Google Earth[®].

2. INTRODUCTION

At approximately 1900 hours on 10 December 2011, two explosions followed by a fire occurred in the Coker Unit of the Pasadena Refining Facility located at 111 Red Bluff Road in Pasadena, Harris County, Texas. The incident was reported by the PRP to the National Response Center (NRC Report No. 997774), and the NRC notified the EPA Region 6 Prevention and Response Branch (PRB). At 2200 hours, EPA OSC William Rhotenberry notified WESTON, the EPA Region 6 START-3 contractor, to perform a Tier 2 Response. START-3 members Rebecca Ayres and Patrick Bond mobilized to the incident site on 11 December 2011. Texas Commission

on Environmental Quality (TCEQ) Houston personnel responded to the incident and coordinated with EPA.

3. BACKGROUND

Pasadena Refining System, Inc. (PRSI) is an independent refiner and marketer of petroleum products, including petrochemical feedstock with a related crude oil capacity of just over 100,000 barrels per day. PRSI is located on the Houston Ship Channel and was first constructed in 1919. The Coker Unit was constructed in 1969. The explosions and subsequent fire occurred at approximately 1900 hours in the Coker Unit of the facility. One person sustained non-threatening injuries and was transported to the hospital due to a pre-existing respiratory condition. At the time of the incident, winds were out of the northeast at 10 miles per hour (mph) and the temperature was 54° Fahrenheit. No shelter in place was ordered by authorities; however, area residents were notified through the CAER Line operated by the Southeast Regional LEPC, a local community notification program. The fire was brought under control and extinguished at approximately 2330 hours. A Site Location Map and Site Area Map are provided as Attachments A and B, respectively.

4. ACTIONS TAKEN

4.1 Mobilization and Incident Briefing

EPA START-3 mobilized to the site on 11 December 2011 to assess site conditions and conduct a follow-up investigation into the cause of the explosions and resulting fire. At the site, START-3 was briefed by PRP representative, John Jones, Senior Environmental Engineer, and was escorted to an area near the incident location and briefed on the current site status. According to the PRP, the fire started in the coke drum located on the south side of the Coker Unit. Water suppression activities were ongoing at the unit, and plant personnel stated these activities would continue until the threat of a reoccurring fire had dissipated. An investigation into the cause of the fire would commence at that time. Air monitoring conducted by plant personnel during the response detected no constituents above background levels. The nearby Washburn Tunnel was closed in both directions and re-opened when the ‘all clear’ was given at 0200 hours on 11 December 2011. Fire suppression water was contained on-site, pre-treated through an oil/water

separator, and transported to Gulf Coast Waste Disposal Authority (GCWDA) facility in Pasadena for disposal.

4.2 Fire Suppression and Air Monitoring

Responding local emergency crews included the Pasadena Fire Department and Channel Industries Mutual Aid (CIMA). Fire suppression was conducted by plant personnel and responding emergency crews. As reported by PRSI, the fire was under control and extinguished by 2330 hours. Runoff from the fire suppression activities was contained within the secondary containment and diverted to a trap and lift station located near the Houston Ship Channel before pre-treatment through an oil/water separator. Following pre-treatment, the run-off was transported to GCWDA for final treatment before discharged as part of the waste facility's permitted National Pollutant Discharge Elimination System (NPDES) outfall.

Air monitoring southwest of the facility was conducted by PRSI personnel utilizing a MultiRAE four-gas meter. No constituents of concern (volatile organic compounds [VOCs]) were detected. As required, PRSI submitted a State of Texas Environmental Electronic Reporting System (STEERS) report to TCEQ due to a reportable quantity release to the atmosphere as a result of the fire. The report included calculations for flaring emissions generated from the CEMS system that continually monitors the flow to the flare in addition to other emissions based on the volume of the vessels and lines involved. An Air Monitoring Location Map is provided as Attachment C. Results from air monitoring activities conducted by PRSI are included as Attachment D. Emission calculations are provided as Attachment E and a drainage diagram provided by PRSI is provided as Attachment F.

Upon confirmation by PRSI that the incident site was secure, START-3 was escorted to a perimeter fence near the incident location by PRSI representative John Jones to conduct photographic documentation as provided in Attachment G. A copy of the START-3 site logbook is provided as Attachment H.

4.3 Demobilization and Follow-up

At 0918 hours on 11 December 2011, START-3 briefed EPA OSC Rhotenberry on the site status. During the briefing, EPA OSC Rhotenberry determined that the incident was stabilized

and released START-3 from the incident location. EPA OSC Rhotenberry tasked START-3 to conduct follow-up correspondence concerning any environmental impacts resulting from the explosions and fire.

During follow-up telephone and email correspondence conducted by START-3 on 12 December 2011, 14 December 2011, and 06 January 2012, the following information was reported by the PRP:

- Preliminary investigation into the cause of the incident indicates the plug valve that controls the feed line to the coke drum blew out its bonnet causing coke, heated to 1000°F, to spray out of the pipe and ignite. The flame and heat from the fire impinged on the coke drum causing it to rupture.

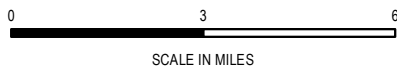
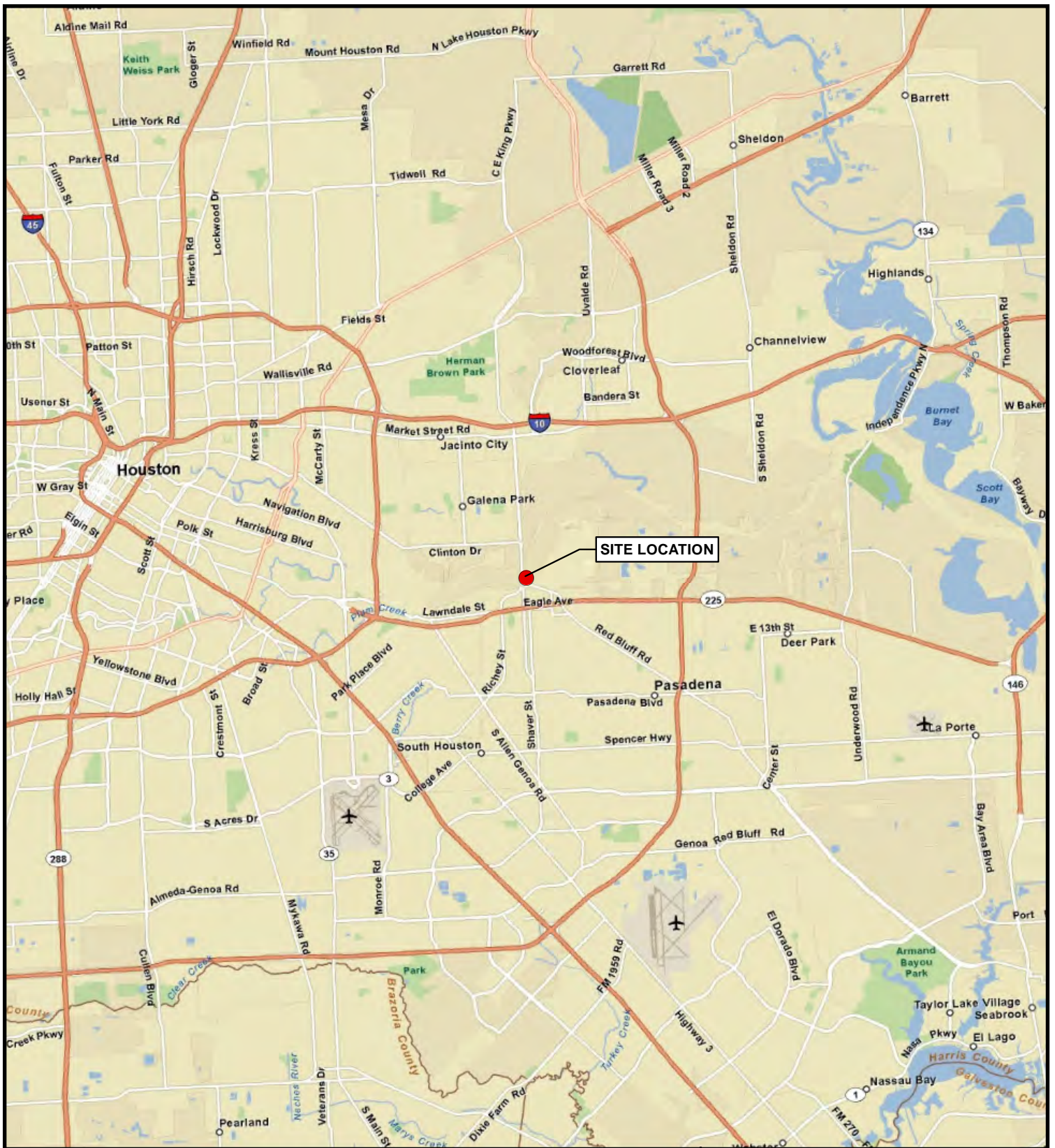
This final report was prepared as part of the requirements of Technical Direction Document (TDD) No. TO-0001-11-12-02 and serves as documentation of work completed to date.

5. LIST OF ATTACHMENTS

- A. Site Location Map
- B. Site Area Map
- C. Off-site Air Monitoring Map
- D. PRSI Air Monitoring Data
- E. PRSI Emission Calculations
- F. PRSI Drainage Diagram
- G. Digital Photographs
- H. START-3 Site Logbook
- I. NRC Report No. 997774
- J. Pollution Report (POLREP)
- K. TDD No. TO-0001-11-12-02

ATTACHMENT A

SITE LOCATION MAP



LEGEND

● SITE LOCATION



US EPA REGION 6 START- 3

ATTACHMENT A
SITE LOCATION MAP
PASADENA REFINING INC.
111 RED BLUFF ROAD
PASADENA, HARRIS COUNTY, TEXAS

NRC NO: 997774
 TDD NO: TO-0001-11-12-02

SOURCE: ESRI WORLD STREETMAP SERVICE

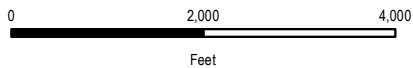
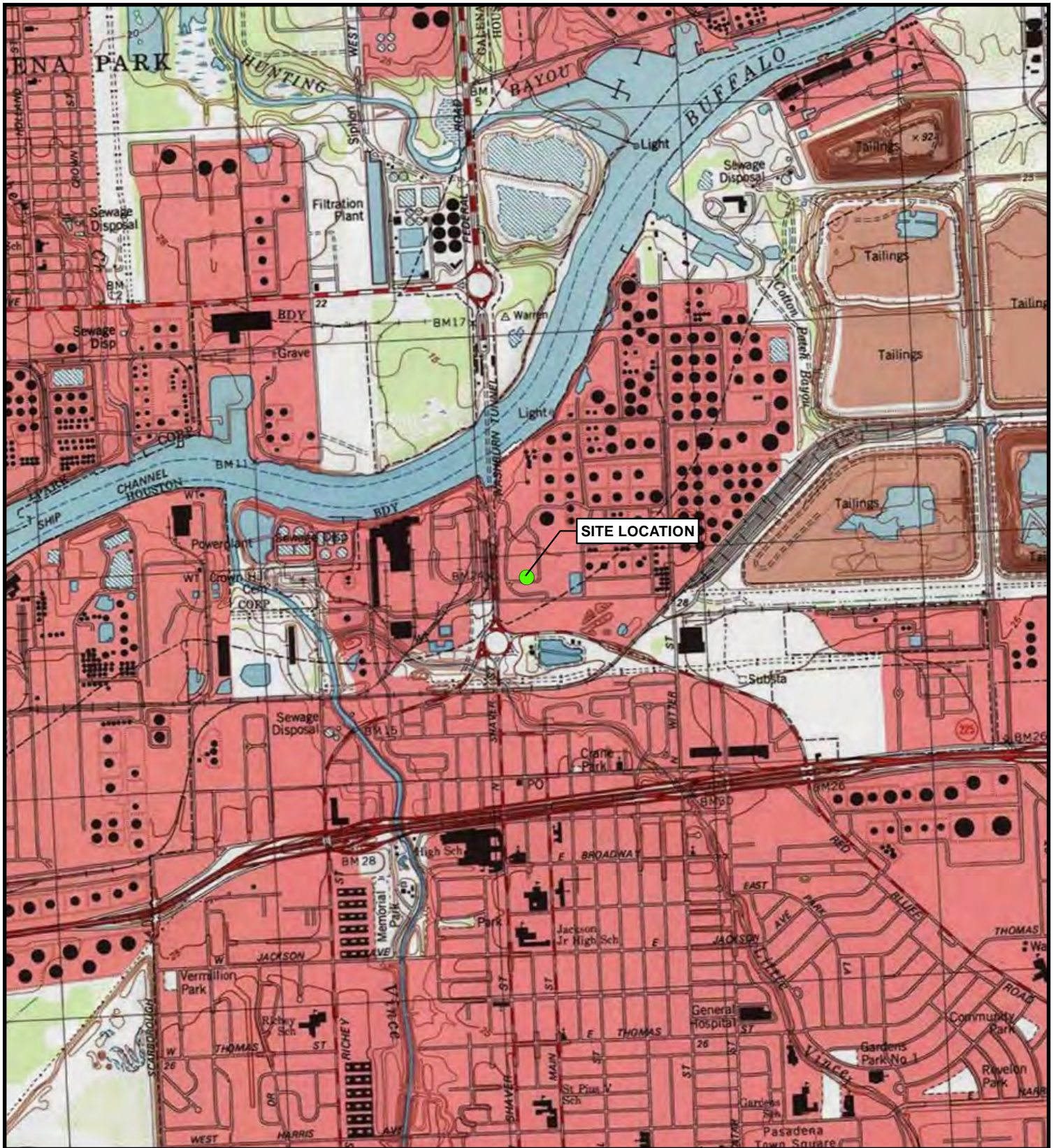
DATE
 JAN 2012

PROJECT NO
 20406.012.001.0693.01

SCALE
 AS SHOWN

ATTACHMENT B

SITE AREA MAP



LEGEND

● SITE LOCATION



**US EPA REGION 6
START- 3**

**ATTACHMENT B
SITE AREA MAP
PASADENA REFINING INC.
111 RED BLUFF ROAD
PASADENA, HARRIS COUNTY, TEXAS**

NRC NO: 997774
TDD NO: TO-0001-11-12-02

SOURCE: TOPO SERVICE - 2010 NATIONAL GEOGRAPHIC SOCIETY

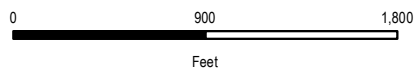
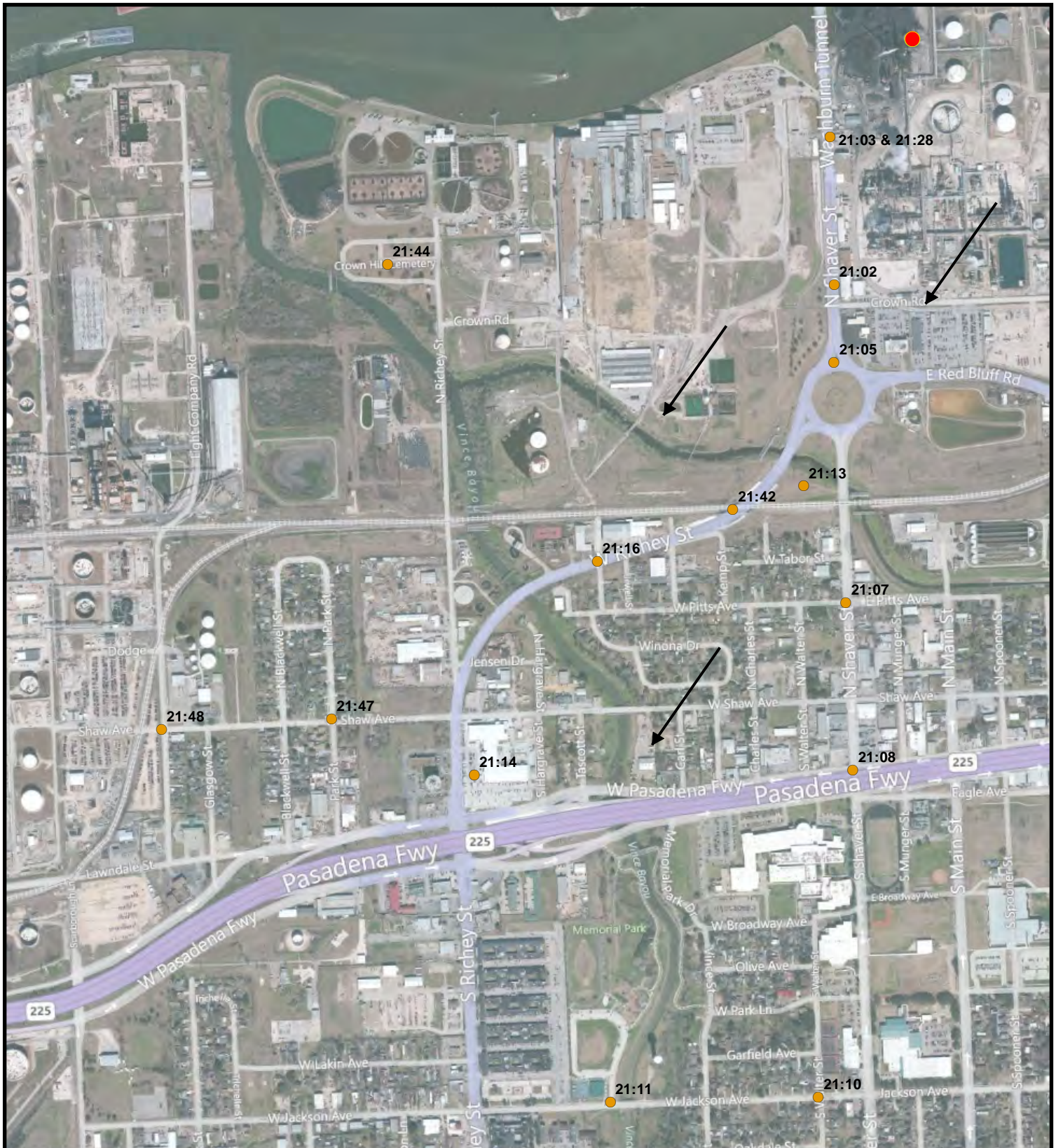
DATE
JAN 2012

PROJECT NO
20406.012.001.0693.01

SCALE
AS SHOWN

ATTACHMENT C

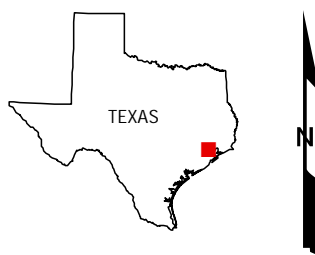
OFF-SITE AIR MONITORING MAP



LEGEND

- FIRE LOCATION
- AIR MONITORING LOCATIONS
-TIME OF MEASUREMENT SHOWN
- WIND DIRECTION

NOTE: AT THE TIME OF INCIDENT, WIND DIRECTION WAS FROM NE AT 10 MPH.



US EPA REGION 6 START- 3

ATTACHMENT C
OFFSITE AIR MONITORING MAP
PASADENA REFINING INC.
111 RED BLUFF ROAD
PASADENA, HARRIS COUNTY, TEXAS

NRC NO: 997774
TDD NO: TO-0001-11-12-02

SOURCE: BING MAPS HYBRID - MICROSOFT CORPORATION AND ITS DATA SUPPLIERS

DATE
JAN 2012

PROJECT NO
20406.012.001.0693.01

SCALE
AS SHOWN

ATTACHMENT D

PRSI AIR MONITORING DATA

**Air Monitoring Data
December 10, 2011**

PRSI

Instrument #24

Time	Location	In Plant?	O2 %	Reading				
				VOC ppm	H2S ppm	SO2 ppm	CO ppm	LEL%
20:35	East side of wash pad	Y	20.9	0	0	0	0	0
	North side of wash pad	Y	20.9	0	0	0	0	0
20:37	North side of separator	Y	20.9	0	0	0	0	0
20:37	Gate 2	Y	20.9	0	0	0	0	0
20:40	South of warehouse	Y	20.9	0	0	0	0	0
20:41	North of lab	Y	20.9	0	0	0	0	0
20:48	North of Ops building	Y	20.9	0	0	0	0	0
20:50	Coke Lab	Y	20.9	0	0	0	0	0
20:52	Gate 8	Y	20.9	0	0	0	0	0
20:57	South of Tk 210	Y	20.9	0	0	0	0	0
21:02	Tunnel Guard Shack	N	20.9	0	0	0	0	0
21:03	Gate #2	N	20.9	0	0	0	0	0
21:05	North side of Traffic Circle	N	20.9	0	0	0	0	0
21:07	W. Pitts / N. Shaver	N	20.9	0	0	0	0	0
21:08	225 / Shaver	N	20.9	0	0	0	0	0
21:10	W Jackson / Walter	N	20.9	0	0	0	0	0
21:11	Memorial Park / Jackson	N	20.9	0	0	0	0	0
21:13	Between Richey Shaver	N	20.9	0	0	0	0	0
21:14	County Courthouse Extension	N	20.9	0	0	0	0	0
21:16	Brockman / Richey	N	20.9	0	0	0	0	0
21:25	Coke Lab	Y	20.9	0	0	0	0	0
21:26	Maintenance Lunch Room	Y	20.9	0	0	0	0	0
21:28	Gate #2	N	20.9	0	0	0	0	0
21:29	Gate #1	Y	20.9	0	0	0	0	0
21:31	Maintenance / Ave B	Y	20.9	0	0	0	0	0
21:32	Zone 1 / Ave B	Y	20.9	0	0	0	0	0
21:33	Gate 10	Y	20.9	0	0	0	0	0
21:39	West of Planning	N	20.9	0	0	0	0	0
21:42	N. Richey Road / RR Tracks	N	20.9	0	0	0	0	0
21:44	Crown Cemetery	N	20.9	0	0	0	0	0
21:47	Shaw / North Park	N	20.9	0	0	0	0	0
21:48	Light Company Rd / Shaw	N	20.9	0	0	0	0	0

Calibration Certificate

MX6 iBrid Multi-Gas Monitor

Instrument SN: 08010KY-024 **Calibration Date:** 12/2/2011
Part Number: MX6-KJ53R211 **Job Number:** M010KY
Setup Date: 2/19/2008 **Options:** N/A
Setup Technician: SGB **Battery:** 3-Cell Lithium Battery Pack
Created By: DSSUSER

Sensor SN	Sensor Type	Gas Type	Span Gas	Span Reserve	Passed/Failed	Alarm Low	Alarm High	Alarm TWA	Alarm STEL
10092HK055	Combustible-LEL Sensor	Pentane	25	144%	Passed	10	20	N/A	N/A
0111869387018	Sulfur Dioxide Sensor	Sulfur Dioxide	10	174%	Passed	2	4	2	5
58329433120	Oxygen Sensor	Oxygen	20.9	148.33%	Passed	19.5	23.5	N/A	N/A
0311955920028	Hydrogen Sulfide Sensor	Hydrogen Sulfide	25	187.2%	Passed	10	20	10	15
29841210	PID Sensor	Isobutylene	100	332.3%	Passed	100	200	100	200
0311955920028	Carbon Monoxide Sensor	Carbon Monoxide	100	167%	Passed	35	70	35	400

Sensor SN	Sensor Type		Cal Date/Time		Cylinder ID	Cylinder Exp
10092HK055	Combustible-LEL Sensor		12/2/2011 12:30:42 PM		N/A	1/31/2012
0111869387018	Sulfur Dioxide Sensor		12/2/2011 12:27:19 PM		N/A	1/31/2012
58329433120	Oxygen Sensor		12/2/2011 12:24:14 PM		N/A	N/A
0311955920028	Hydrogen Sulfide Sensor		12/2/2011 12:28:45 PM		N/A	1/31/2012
29841210	PID Sensor		12/2/2011 12:25:25 PM		N/A	12/31/2011
0311955920028	Carbon Monoxide Sensor		12/2/2011 12:29:54 PM		N/A	1/31/2012



ATTACHMENT E

PRSI EMISSION CALCULATIONS

**PASADENA REFINING SYSTEM INC.
PASADENA REFINERY**

EMISSIONS FROM DECEMBER 10, 2011 COKER FIRE

A. Emissions from the fire at the Coker Unit

Feed Density = 61.42 lb/cu. ft.

1. Feed from pump 1 to Drum B

<u>KH-1N</u>	<u>KH-1S</u>	<u>KH-2</u>
1,983	1,381	2,130

5,493

Total lbs, Sulfur content is 0.707 wt%

All moved volume from KP-1A/B to KD-1B as recorded by the plant's data historian.

2. Line and Vessel Volumes, liquids

<u>6" from KH-1 N/S</u>	<u>8" from KH-1 to KD-1</u>	<u>KH-1</u>
49	401	7,034
<u>6" from KP-1A/B</u>	<u>6" from KH-2</u>	<u>KH-2</u>
372	136	2,690

4" to KH-2
54

20% of volume from KP-1A/B to KD-1B, Including KH-1 and KH-2.

0.2 % of Total

10,736

Total lbs, assuming Coker Feed density, inventory of all piping from KP-1 to KD-1. Sulfur content is 0.707 wt%

3. Line and Vessel Volumes, gases

<u>18" KD-1 to KT-1</u>	<u>16" KD-1 to 18" Line</u>	<u>KD-2</u>
30	26	104

<u>6" KT-1 to KE-1</u>	<u>12" KE-1 to KD-2</u>	<u>10" KD-2 to KC-1</u>
6	3	19

188

Total lbs, assuming PSV relieving MW, inventory of all piping from KD-1 to KC-1, Including KD-2. Sulfur con

$$m = PV \cdot MW / (T \cdot R)$$

	KE-1 and Downstream	Drum to KT-1	KT-1 to KE-1	
MW =	59.7	59.7	59.7	lb/lb-mol
P =	15	25	15	psig
T =	110	800	225	°F
R =	<u>10.73</u>	<u>10.73</u>	<u>10.73</u>	psia * cu. ft. / (lb/lb-mol * °R)
	0.29	0.18	0.24	lb/cu.ft.

4. Drum Fire

A drum warmed drum

18253 cu. ft

169 mw

23.1 psig

620 °F

10,062 lbs

B drum full drum

9195 cu. ft

169 mw

27.4 psig

865 °F

4,602 lbs

Fractionator

3581.71 cu. ft

59.7 mw

15 psig

240 °F

846 lbs

Coke volume 12960 cu. ft
 339.8112 tons
 Assume 10% of the coke burned:
 67,962 lbs coke burned

B. Emissions Calculations

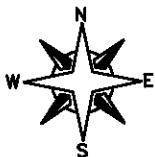
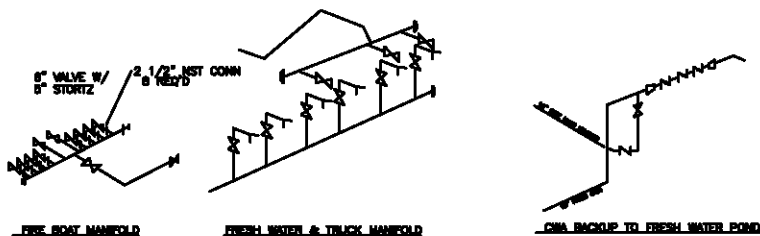
	<u>lbs</u>	<u>sulfur wt%</u>	<u>sulfur lbs</u>	<u>SO2 lbs</u>	93% DRE <u>VOC Emissions</u>
Coker Feed:	5493	0.707	38.84	77.67	384.51
	10736	0.707	75.90	151.81	751.52
	188	0.5	0.94	1.88	13.16
Drums	10062	0.6	60.37	120.74	704.34
	4602	0.6	27.61	55.22	322.14
Fractionator	846	0.6	5.08	10.15	59.22
Coke	68000	1.3	884.00	1768.00	
Coker Feed and drums:	Fuel Oil #6		2175.67		
Fractionator:	Use flare speciation		59.22		
	SO2		2185.48		

	<u>Flare*</u>	<u>Fire</u>
Total Butanes	77.20	19.06
Cis-2 Butene	2.22	0.55
Trans-2Butene	3.12	0.77
Isobutylene	7.24	1.79
1,3-Butadiene	0.08	0.02
Ethylene	3.08	0.76
Propane	38.56	9.52
Propylene	16.29	4.02
C5+/Fuel Oil 6	92.03	2198.40
NOx	12.60	
CO	91.02	
SO2		2185.48
<i>Total VOC</i>	<i>239.82</i>	

* Note: Flare emissions were calculated from the Refinery's CEMS.

ATTACHMENT F

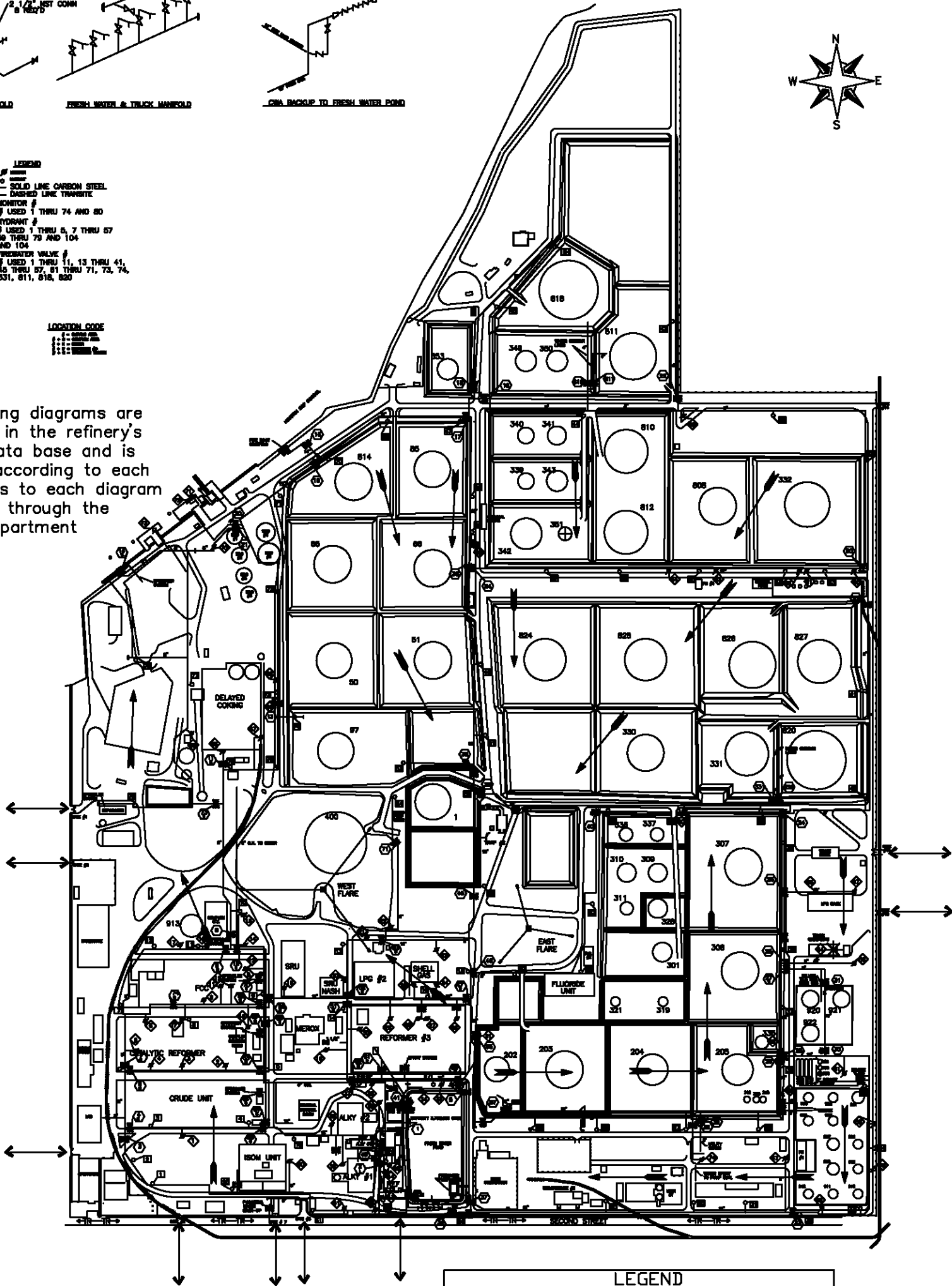
PRSI DRAINAGE DIAGRAM



- LEGEND
- SOLID LINE CARBON STEEL
 - - - DASHED LINE TRANSITE
 - ◇ MONITOR #
USED 1 THRU 74 AND 80
 - HYDRANT #
USED 1 THRU 5, 7 THRU 57
58 THRU 79 AND 104
 - FIREWATER VALVE #
USED 1 THRU 11, 13 THRU 41,
45 THRU 57, 61 THRU 71, 73, 74,
331, 611, 616, 620

- LOCATION CODE
- 1: 100' x 100'
 - 2: 200' x 200'
 - 3: 300' x 300'
 - 4: 400' x 400'
 - 5: 500' x 500'
 - 6: 600' x 600'
 - 7: 700' x 700'
 - 8: 800' x 800'
 - 9: 900' x 900'
 - 10: 1000' x 1000'

NOTE:
Facility piping diagrams are maintained in the refinery's drawings data base and is organized according to each unit. Access to each diagram is available through the Drafting Department File Room.



125' 0' 125'
SCALE

- LEGEND
- ← DRAINAGE FLOW
 - ↔ INGRESS-EGRESS ROUTE
 - ←TR-TR→ TRANSPORTATION ROUTE
 - * EMERGENCY SHUT-DOWN (ESD)

PASADENA REFINING SYSTEM, INC.
PASADENA REFINERY
PASADENA, TEXAS

JOB NO: 5646
DRAWN: EDH

DATE: 07-15-09
SCALE: AS NOTED

DRAINAGE
DIAGRAM

c:\pdocume~1\SALEB~1\SEA\LOCALS~1\Temp\A9C3486298F.dwg

O'Brien's Response
Management Inc.
6620 Cypresswood, Suite 200
Spring (Houston), Texas 77379
Phone: (281) 320-9796

ATTACHMENT G DIGITAL PHOTOGRAPHS

To View Photographs:

1) Open the Folder: Attachment G - Digital Photographs

2) Double click on the Icon (in the folder):





Event Name: Pasadena Refining Fire

Incident Name: 2011-12-10 Fire

Photo Name: 20111211-001

Photo Type: Facility Overview

Direction: NE

Date/Time: Dec 11 2011 8:39AM

Latitude: 0

Longitude: 0

Photographer: Rebecca Ayres

Witness: Patrick Bond

Caption: Coker Unit located on the northwest side of the PRSI facility where two explosions occurred that resulted in a fire.



Event Name: Pasadena Refining Fire
Incident Name: 2011-12-10 Fire
Photo Name: 20111211-004
Photo Type: Property
Direction: NE
Date/Time: Dec 11 2011 8:40AM
Latitude: 0
Longitude: 0
Photographer: Rebecca Ayres
Witness: Patrick Bond
Caption: Petroleum coke located at PRSI ready to load onto barges.



Event Name: Pasadena Refining Fire

Incident Name: 2011-12-10 Fire

Photo Name: 20111211-002

Photo Type: Document

Direction: NE

Date/Time: Dec 11 2011 8:40AM

Latitude: 0

Longitude: 0

Photographer: Rebecca Ayres

Witness: Patrick Bond

Caption: Structural damage from explosion and fire noted on southeast side of Coker Unit.



Event Name: Pasadena Refining Fire

Incident Name: 2011-12-10 Fire

Photo Name: 20111211-005

Photo Type: Property

Direction: N

Date/Time: Dec 11 2011 8:40AM

Latitude: 0

Longitude: 0

Photographer: Rebecca Ayres

Witness: Patrick Bond

Caption: Houston Ship Channel located adjacent to PRSI facility.



ATTACHMENT H

START-3 SITE LOGBOOK



"Rite in the Rain"
ALL-WEATHER
JOURNAL
No. 391

Pasadena Refining Inc
111 Red Bluff Drive
Pasadena, Harris Co, TX

20406.012.001.0693.02RA01

TD-0001-11-12-02



TDB-10-0001-11-12-01

1

Phone - 713-560-6821

20406.012.001.0693.01 TD-0001-11-12-02
20111210 Pasadena Refining R. Ayres

2200: EPA Verbally tasks START-3 to mobilize to Pasadena Refining morning of 11 December 2011 to collect facts regarding two explosions and subsequent fire that occurred approximately at 1900 hours on 10 December 2011. Rep from Texas Commission on Environmental Quality on-site and will coordinate information with EPA DSC Bill Rhotenberry. START-3 prepares HAZOP and Notifies D. Crow of activation.
END OF LOG DAY. ————— RA

R. Ayres

R. Ayres

20406.012.001.0693.01 TD-0001-11-12-02 3
20111211 Pasadena Refining R. Ayres

0630: START-3 RA departs for Houston Warehouse
0700: START-3 RA arrives at Warehouse along with START PB. Collect and organize equipment including Tier I DR Case.
Weather: Cold, windy, H30 partly cloudy.
0745: START-3 RA and PB depart Warehouse enroute for Pasadena Refining located at 111 Red Bluff Rd in Pasadena TX.
Health & Safety: Slips/Trips/falls, cold weather, chemical of concern. Petroleum coke, age of refinery is issue, remain alert and use Buddy system. ————— RA
0810: Arrive at facility. Check in with security and attend safety orientation. ————— RA
0835: John Jones, Senior Environmental Engineer arrives on-site. Conducts briefing as to previous events of incident. Two explosions followed by a fire occurred at approximately 1900 hours on 10 December 2011. Houston Ship Channel within 500 yards of incident location. Local police and fire responded as well as Harris County Pollution
————— R. Ayres

20406.012.001.0693.01 10-0001-11-12-02
 20111210 Pasadena Refining R. Ayres

Control Services (HCPES) and Texas Commission on Environmental ~~Control~~ Quality (TCEQ). One person was injured and transported to the hospital for a pre-existing respiratory injury. No shelter in place was ordered, however local residents were notified of the incident through the CARE line. The Washburn Tunnel was closed in both directions and re-opened when the 'all clear' was given at 0700 hrs. The fire was extinguished at approximately 2330 hours. At this time crews continue to conduct water suppression activities at the unit until the threat of a recurring fire dissipates. _____ RA

0855: START-3 RA and PB are escorted to perimeter of facility to view area of incident. Fire occurred in the coke drum located on the south side of the coker unit. Contents include approximately 20 feet of coke heated to 800°F. Air monitoring conducted by the PRP detected no _____ RA Ayres

20406.012.001.0693.01 10-0001-10-12-02 5
 20111210 Pasadena Refining R. Ayres

constituents above background levels. Fire suppression water diverted from incident location to the #2 trap located at the ship channel where a lift station sends the water to an oil/water separator for pre-treatment before discharging to Gulf Coast Waste. PRP currently samples waste water every 24 hours as a permit requirement. START-3 RA conducts photo doc.

0900 START-3 RA and PB are escorted to office of J. Jones. Discussion includes request for air monitoring location and results, emission calculations for STEERS Report and facility drainage map. _____ RA

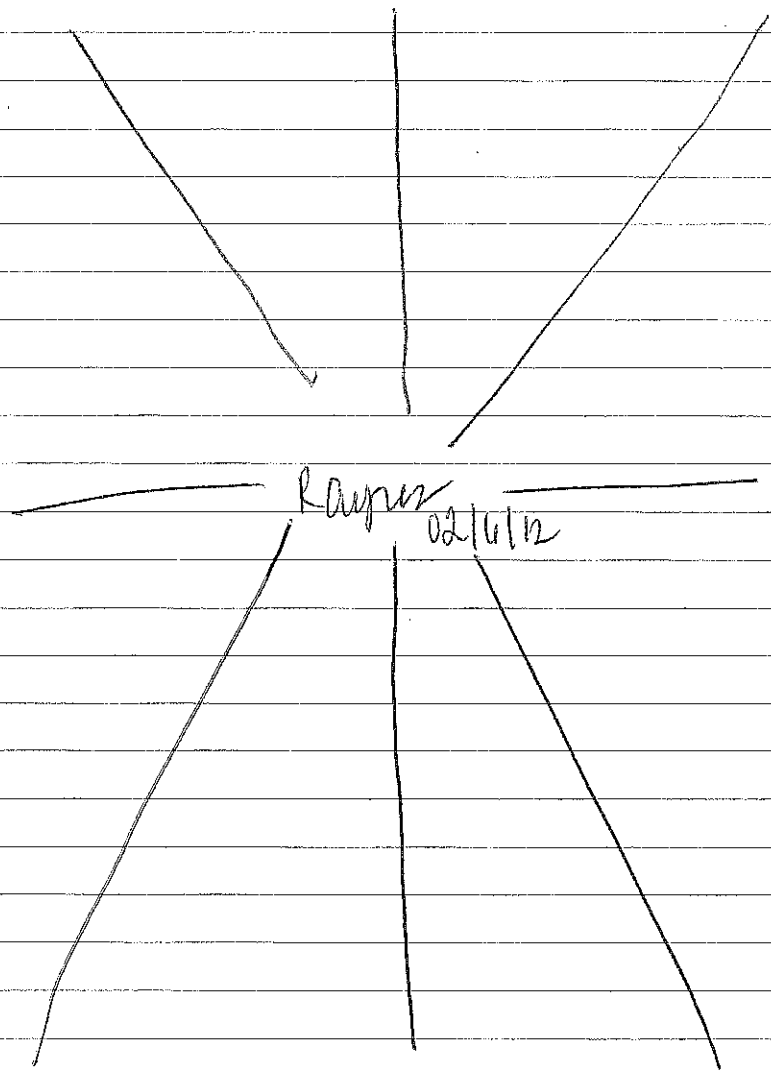
0918 START-3 RA contacts EPA DSE and briefs on site status. START-3 departs site. _____ RA

1000 START-3 RA & PB arrive at warehouse and unload equipment. _____ RA

1030 START-3 RA & PB depart warehouse. END OF Log day. _____ RA

_____ RA Ayres

6 20406-012.001.06013.01 TO-0601112-02
20120206 Pasadena Regning Rayon
END W LGE BOOK RA



Rayon



Pasadena Refining System, Inc.

John Jones
Senior Environmental Engineer

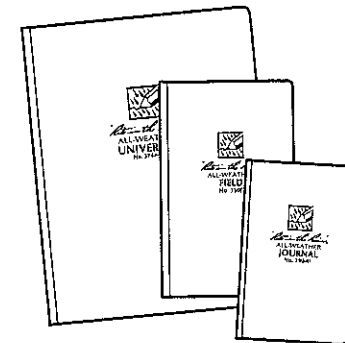
111 Red Bluff Road
Pasadena, Texas 77506
Office: 713.920.4708
Email: jjones@pasadenarefining.com

"Rite in the Rain" ALL-WEATHER WRITING PAPER

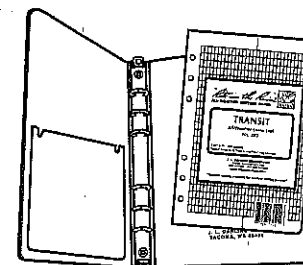
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...for outdoor writing people."



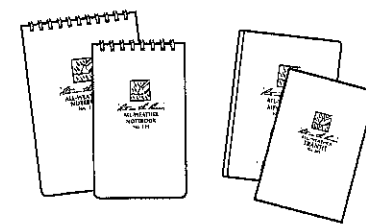
Copier & Ink-Jet Paper



Bound Books



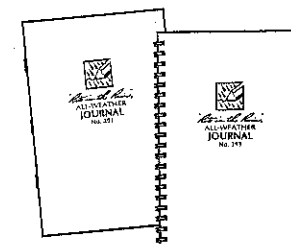
Loose Leaf / Ring Binders



Memo Books

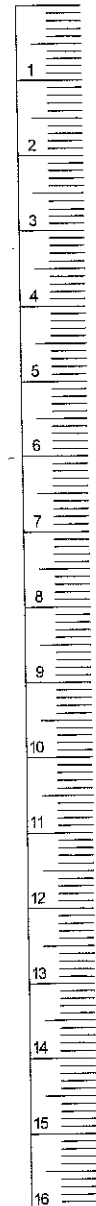


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ATTACHMENT I

NRC REPORT NO. 997774

NATIONAL RESPONSE CENTER 1-800-424-8802

*** For Public Use ***

Information released to a third party shall comply with any applicable federal and/or state Freedom of Information and Privacy Laws

Incident Report # 997774

INCIDENT DESCRIPTION

*Report taken at 21:36 on 10-DEC-11

Incident Type: FIXED

Incident Cause: UNKNOWN

Affected Area:

The incident occurred on 10-DEC-11 at 19:04 local time.

Affected Medium: AIR / ATMOSPHERE- SMOKE IMPACT

SUSPECTED RESPONSIBLE PARTY

Organization: PASADENA REFINING SYSTEM INC.
PASADENA, TX 77506

Type of Organization: PRIVATE ENTERPRISE

INCIDENT LOCATION

111 RED BLUFF RD County: HARRIS
City: PASADENA State: TX Zip: 77506

RELEASED MATERIAL(S)

CHRIS Code: NCC Official Material Name: NO CHRIS CODE

Also Known As: VACUUM TOWER BOTTOMS

Qty Released: 0 UNKNOWN AMOUNT

DESCRIPTION OF INCIDENT

CALLER IS REPORTING THAT VACUUM TOWER BOTTOM IS RELEASING FROM THE COKER UNIT DUE TO A FIRE (THE CAUSE OF THE FIRE IS UNDETERMINED AT THIS TIME). THERE ARE NO REPORTED INJURIES OR FATALITIES. HOWEVER, WASHBURN TUNNEL HAS BEEN SHUT DOWN IN ALL DIRECTIONS.

INCIDENT DETAILS

Package: N/A

Building ID:

Type of Fixed Object: REFINERY

Power Generating Facility: NO

Generating Capacity:

Type of Fuel:

NPDES:

NPDES Compliance: UNKNOWN

DAMAGES

Fire Involved: YES Fire Extinguished: NO

INJURIES: NO

Hospitalized:

Empl/Crew:

Passenger:

FATALITIES: NO

Empl/Crew:

Passenger:

Occupant:

EVACUATIONS: NO

Who Evacuated:

Radius/Area:

Damages: NO

<u>Closure Type</u>	<u>Description of Closure</u>	<u>Length of Closure</u>	<u>Direction of Closure</u>
Air: N			
Road: Y	WASHBURN TUNNEL		ALL Major Artery: Y
Waterway: N			

Track: N

Passengers Transferred: NO

Environmental Impact: UNKNOWN

Media Interest: MEDIUM Community Impact due to Material:

REMEDIAL ACTIONS

ALL LOCAL EMERGENCY RESPONDERS ARE ONSCENE TRYING TO CONTAIN THE FIRE.

Release Secured: NO

Release Rate:

Estimated Release Duration:

WEATHER

Weather: OVERCAST, 50°F Wind speed: 10 MPH Wind direction:

ADDITIONAL AGENCIES NOTIFIED

Federal: NONE

State/Local: LOCAL EMERGENCY RESPONDERS

State/Local On Scene: LOCAL EMERGENCY RESPONDERS

State Agency Number: NO REPORT #

NOTIFICATIONS BY NRC

CALCASIEU PARISH SHERIFF'S DEPT (CRIMINAL INTELLIGENCE UNIT)

10-DEC-11 21:51

CGIS HOUSTON (SPECIAL AGENT CGIS)

10-DEC-11 21:51

CHEM SAFETY AND HAZARD INVEST BOARD (WEEKEND)

10-DEC-11 22:54

CHEM SAFETY AND HAZARD INVEST BOARD (CSB AUTOMATIC NOTIFICATIONS)

10-DEC-11 21:51

DHS TEXAS FUSION CENTER (INTELLIGENCE OFFICERS)

10-DEC-11 21:51

DOT CRISIS MANAGEMENT CENTER (MAIN OFFICE)

10-DEC-11 21:51

EPA OEM (MAIN OFFICE)

10-DEC-11 21:57

EPA OEM (WEEKEND CONTACT)

10-DEC-11 21:57

U.S. EPA VI (MAIN OFFICE)

10-DEC-11 21:52

USCG NATIONAL COMMAND CENTER (MAIN OFFICE)

10-DEC-11 21:53

JFO-LA (COMMAND CENTER)

10-DEC-11 21:51

NATIONAL INFRASTRUCTURE COORD CTR (MAIN OFFICE)

10-DEC-11 21:51

NOAA RPTS FOR TX (MAIN OFFICE)

10-DEC-11 21:51

NATIONAL RESPONSE CENTER HQ (MAIN OFFICE)

10-DEC-11 21:54

HOMELAND SEC COORDINATION CENTER (MAIN OFFICE)

10-DEC-11 21:51

SECTOR HOUSTON-GALVESTON (COMMAND CENTER)

10-DEC-11 21:54

TCEQ (MAIN OFFICE)

10-DEC-11 21:51

TCEQ (REGION 12)

10-DEC-11 21:51

TX DEPT OF STATE HEALTH SERVICES (COMMAND CENTER)

10-DEC-11 21:51

TX GENERAL LAND OFFICE (MAIN OFFICE)

10-DEC-11 21:51

TEXAS STATE OPERATIONS CENTER (COMMAND CENTER)

10-DEC-11 21:51

USCG DISTRICT 8 (MAIN OFFICE)

10-DEC-11 21:51

ADDITIONAL INFORMATION

CALLER STATED THAT HE WILL NOTIFY TCEQ AND HARRIS COUNTY. HE ALSO STATED THAT HE MADE NOTIFICATIONS TO THE CARE LINE FOR THE GENERAL PUBLIC.

*** END INCIDENT REPORT # 997774 ***

The National Response Center is strictly an initial report taking agency and does not participate in the investigation or incident response. The NRC receives initial reporting information only and notifies Federal and State On-Scene Coordinators for response. The NRC does not verify nor does it take follow-on incident information. Verification of data and incident response is the sole responsibility of Federal/State On-Scene Coordinators. Data contained within the FOIA Web Database is initial information only. All reports provided via this server are for informational purposes only. Data to be used in legal proceedings must be obtained via written correspondence from the NRC.

ATTACHMENT J

POLLUTION REPORT (POLREP)

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Pasadena Refining Inc. - Removal Polrep
Initial Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region VI

Subject: POLREP #1
Final
Pasadena Refining Inc.

Pasadena, TX
Latitude: 29.7185707 Longitude: -95.2110871

To:
From: William Rhotenberry, OSC
Date: 12/11/2011
Reporting Period:

1. Introduction

1.1 Background

Site Number:	Contract Number:
D.O. Number:	Action Memo Date:
Response Authority: CERCLA	Response Type: Emergency
Response Lead: EPA	Incident Category:
NPL Status: Non NPL	Operable Unit:
Mobilization Date: 12/10/2011	Start Date: 12/11/2011
Demob Date: 12/11/2011	Completion Date:
CERCLIS ID:	RCRIS ID:
ERNS No.:	State Notification:
FPN#:	Reimbursable Account #:

1.1.1 Incident Category

Emergency Response

1.1.2 Site Description

Pasadena Refining System, Inc. (PRSI) is an independent refiner and marketer of petroleum products, including petrochemical feedstock with a related crude oil capacity of just over 100,000 barrels per day. PRSI is located on the Houston Ship Channel. The refinery was first constructed in 1919. The Coker unit was constructed in 1969.

1.1.2.1 Location

111 Red Bluff Drive, Pasadena, Harris County, Texas

1.1.2.2 Description of Threat

Explosion and fire involving the Coker Unit at the refinery.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

PRSI and responding agencies began applying suppression water to the fire. Run-off from fire fighting activities was contained on-site. Responding agencies included the Pasadena Fire Department and Channel Industries Mutual Aid (CIMA).

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

At approximately 1900 hours on 10 December 2011, two explosions followed by a fire occurred in the Coker Unit of the refinery. No shelter in place was ordered by authorities; however, area residents were notified through the CARE line. The fire was brought under control and extinguished at approximately 2330 hours. Texas Commission on Environmental Quality (TCEQ) Houston personnel responded to the incident and coordinated with EPA.

2.1.2 Response Actions to Date

EPA START Contractors mobilized to the site on 11 December 2011 to assess site conditions and conduct a follow up investigation into the cause of the explosion and resulting fire. Upon arrival, START met with plant personnel and were escorted to an area near the incident location and briefed on current site status. Water suppression activities continued at the Coker Unit and plant personnel stated these activities would continue until the threat of a reoccurring fire had dissipated. An investigation into the cause of the fire would commence at that time. No chemicals are believed to have been released as a result of the incident and air monitoring conducted by plant personnel during the response detected no constituents above background levels. The Washburn Tunnel was closed on both sides and re-opened when the 'all clear' was given. Fire suppression water was contained on-site, pre-treated through an oil/water separator, and transported to Gulf Coast Waste for disposal. START conducted written and photographic documentation of the incident location.

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

Pasadena Refining System, Inc. is the PRP.

2.1.4 Progress Metrics

<i>Waste Stream</i>	<i>Medium</i>	<i>Quantity</i>	<i>Manifest #</i>	<i>Treatment</i>	<i>Disposal</i>

2.2 Planning Section

2.2.1 Anticipated Activities

2.2.1.1 Planned Response Activities

The PRP will conduct an investigation into the cause of the explosion and resulting fire and submit a STEERS Report to TCEQ based on emission calculations.

2.2.1.2 Next Steps

START will acquire air monitoring data to verify that there is no further impact to the local community and surrounding environment. Contact PRP and inquire as to the cause of the explosion.

2.2.2 Issues

Runoff water storage may become an issue for PRSI necessitating a request to discharge into the HSC. EPA and TCEQ will monitor this situation.

2.3 Logistics Section

No information available at this time.

2.4 Finance Section

No information available at this time.

2.5 Other Command Staff

2.5.1 Safety Officer

One person was injured with non-threatening injuries and transported to the hospital due to a pre-existing respiratory condition.

2.5.2 Liaison Officer

2.5.3 Information Officer

3. Participating Entities

3.1 Unified Command

Responding agencies include: Harris County Pollution Control Services (HCPCS) and TCEQ.

3.2 Cooperating Agencies

CIMA, Pasadena Fire Department, and Pasadena Police Department

4. Personnel On Site

No information available at this time.

5. Definition of Terms

No information available at this time.

6. Additional sources of information

No information available at this time.

7. Situational Reference Materials

No information available at this time.

ATTACHMENT K

TDD NO. TO-0001-11-12-02

START3
Technical Direction Document

TDD #: TO-0001-11-12-02
Contract: EP-W-06-042

Response Activities- REMOVAL
Funds (0001)
Weston Solutions, Inc.

! = required field ☐ Moved To EAS

Note: Remaining Amount
includes \$0.00 in Reserve.

TDD Name: Pasadena Refining Inc.		Period: Base Period
Purpose: Work Assignment Initiation		Verbal Date: 12/10/2011
Priority: High		Start Date: 12/10/2011
Overtime: Yes		Completion Date: 02/10/2012
Funding Category: Removal		Invoice Unit:
Project/Site Name: Pasadena Refining Inc.		WorkArea: RESPONSE ACTIVITIES
Project Address: 111 Red Bluff Road		Activity: Emergency Response
County: Harris		Work Area Code:
City, State: Pasadena, TX		Activity Code: RV
Zip: 77506		EMERGENCY CODE: <input type="checkbox"/> KAT <input type="checkbox"/> RIT
SSID: A6CP		FPN:
CERCLIS:		Performance Based: No
Operable Unit:		

Authorized TDD Ceiling:	Cost/Fee	LOE (Hours)
Previous Action(s):	\$0.00	0.0
This Action:	\$8,000.00	0.0
New Total:	\$8,000.00	0.0

Specific Elements - Collect facts regarding the discharge or release to include its source and cause, - Identify the pathways to human and environmental exposure, - Provide analysis of discharges or releases posing a substantial threat to the public health or welfare of the United States, - Analyze the potential impact on natural resources and property, - Observe and document federal state and private actions taken to conduct a response action, - Analyze PRP response documents and actions

Description of Work:

All activities performed in support of this TDD shall be in accordance with the contract and TO PWS.

Tier 2. START shall document current site conditions and actions taken by the RP during the response. START shall provide analysis of any monitoring or sampling data collected by the RP or other responding agencies during the response. START shall summarize overall activities by both the RP and other agencies during the response in a final report. START shall consult with the OSC on the format of the Final Report.

Accounting and Appropriation Information

SFO: 22

Line	DCN	IFMS	Budget/ FY	Appropriati on Code	Budget Org Code	Program Element	Object Class	Site Project	Cost Org Code	Amount
1	RVC037	XXX	11	T	6A00E	302DC6C	2505	A6CPRV00	C001	\$8,000.00

Funding Summary:	Funding
Previous:	\$0.00
This Action:	\$8,000.00
Total:	\$8,000.00

Funding Category
Removal

Section

- Signed by William Rhotenberry/R6/USEPA/US on 12/12/2011 10:16:02 AM, according to Abel Farias/

Comments: Contact OSC by mobile # below

: William Rhotenberry

Date: 12/12/2011

Phone #: 214.437.9804

Project Officer Section - Signed by Linda Carter/R6/USEPA/US on 12/14/2011 11:34:36 AM, according to Al

Project Officer: Linda Carter

Date: 12/12/2011

Contracting Officer Section - Signed by Cora Stanley/R6/USEPA/US on 12/12/2011 03:38:13 PM, according

Contracting Officer: Cora Stanley

Date: 12/12/2011

Contractor Section - Signed by Robert Beck/start6/rfw-start/us on 12/13/2011 07:11:06 AM, according to

☒ No During the past three (3) calendar years has your company , or any of your employees that will
☐ Yes be working at this site , previously performed work at this site /facility?

Contractor Contact: Robert Beck

Date: 12/13/2011